

# **METHOD AND APPARATUS FOR QUANTIFYING THE NUMBER OF IDENTICAL CONSECUTIVE DIGITS WITHIN A STRING**

## **ABSTRACT**

One embodiment of the present invention provides a system for quantifying a number of identical consecutive digits starting from a fixed position within a string of  $n$  digits. The system operates by converting the string of  $n$  digits into a thermometer code, wherein the thermometer code uses  $m$  bits to represent a string of  $m$  identical consecutive digits within the string of  $n$  digits. Next, the system converts the thermometer code into a one-hot code in which only one bit has a logical one value. Finally, the system converts the one-hot code into a logarithmic code representing the number of identical consecutive digits.